

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus comprising:

a comparison unit coupled to an output of a final stage of multiple stages in a receiver channel, the comparison unit to compare differential intermediate versions of a received signal passing through the multiple stages; and

a controller coupled to an output of the comparison unit, the controller to calibrate each of the multiple stages.

2. (Original) The apparatus of claim 1, wherein the comparison unit includes a single comparator coupled to the output of the final stage, the output to provide a signal representative of a received signal at an input to the receiver channel.

3. (Original) The apparatus of claim 1, wherein the controller is adapted to decouple from the receiver channel to characterize performance of the receiver channel.

4. (Original) The apparatus of claim 1, wherein the controller is reconfigurable to test the receiver channel.

5. (Original) The apparatus of claim 1, wherein the apparatus is a portable wireless receiver.

6. (Currently Amended) An apparatus comprising:

multiple calibration circuits to calibrate multiple stages in a receiver channel; and
a controller coupled to an output of a final stage of the multiple stages, the controller coupled to each of the multiple calibration circuits, the controller to control each of the multiple calibration circuits.

7. (Original) The apparatus of claim 6, wherein the controller includes a single comparator coupled to the output of the final stage, the final stage output to provide a signal representative of a received signal at an input to the receiver channel.
8. (Original) The apparatus of claim 7, wherein each calibration circuit is assigned to one stage of the multiple stages, the multiple stages being a sequence of filter stages in the receiver channel.
9. (Original) The apparatus of claim 6, wherein each calibration circuit is adapted to provide a DC offset calibration.
10. (Original) The apparatus of claim 6, wherein the multiple calibration circuits and the controller are adapted to decouple from the receiver channel.
11. (Original) The apparatus of claim 6, wherein the controller includes a stage selection circuit to sequentially calibrate each stage of the multiple stages, wherein each of the calibration circuits is assigned to a separate one of the multiple stages.
12. (Currently Amended) ~~The apparatus of claim 11,~~ An apparatus comprising:
 multiple calibration circuits to calibrate multiple stages in a receiver channel; and
 a controller coupled to an output of a final stage of the multiple stages, the controller to control each of the multiple calibration circuits, wherein the controller includes:
 a stage selection circuit to sequentially calibrate each stage of the multiple stages,
 wherein each of the calibration circuits is assigned to a separate one of the multiple stages;
 a comparison unit coupled to the final stage to evaluate a received signal propagating through the receiver channel;
 multiple registers coupled to the stage selection circuit, each register associated with a separate one of the multiple stages, each register to hold a signal to provide DC offset calibration to its associated stage; and

a modulator to provide each register with its signal to provide DC offset calibration to its associated stage, the modulator responsive to an output of the comparison unit.

13. (Original) The apparatus of claim 11, wherein the comparison unit is adapted to compare differential intermediate versions of the received signal.

14.(Original) The apparatus of claim 6, wherein the controller is reconfigurable to test the receiver channel.

15. (Currently Amended) ~~The apparatus of claim 14,~~ An apparatus comprising:
multiple calibration circuits to calibrate multiple stages in a receiver channel; and
a controller coupled to an output of a final stage of the multiple stages, the controller to
control each of the multiple calibration circuits, wherein the controller is reconfigurable to test
the receiver channel and the controller includes:

a stage selection circuit to select one or more of the multiple stages to receive a test signal;

multiple registers, each register associated with a separate one of the multiple stages to provide its associated stage with its test signal, each register responsive to the stage selection circuit;

a modulator having a test enable input and test signal circuits to provide each register with its test signal.

16. (Currently Amended) A system comprising:

a substantially omnidirectional antenna to receive a signal;

a bandpass filter coupled to the antenna; and

a receiver channel having multiple stages to convert the signal;

multiple calibration circuits to provide calibration to the multiple stages; and

a controller coupled to an output of a final stage of the multiple stages, the controller coupled to each of the multiple calibration circuits to control each of the multiple calibration circuits.

17. (Original) The system of claim 16, wherein the controller includes a single comparator coupled to the final stage of the multiple stages in the receiver channel.

18. (Original) The system of claim 16, wherein the controller includes a stage selection circuit to sequentially calibrate each stage in the multiple stages, wherein each of the calibration circuits is assigned to a separate one of the multiple stages.

19. (Original) The system of claim 16, wherein the multiple calibration circuits and the controller are adapted to decouple from the receiver channel.

20. (Original) The system of claim 16, wherein the controller is reconfigurable to test the receiver channel.

21. (Original) The system of claim 16, wherein the system is a portable wireless communication system.

22. (Currently Amended) A method comprising:

evaluating a received signal from an output of a final stage of multiple stages in a receiver channel using a single comparison unit to compare differential intermediate versions of a received signal passing through the multiple stages; and

selectively controlling the calibration of each stage of the multiple stages based on an output from the single comparison unit.

23. (Original) The method of claim 22, wherein using a single comparison unit includes using a single comparator.

24. (Original) The method of claim 22, wherein selectively controlling the calibration of the multiple stages includes reducing a DC offset to less than 0.5 mV for each stage.

25. (Currently Amended) ~~The method of claim 22;~~ A method comprising:
evaluating a received signal from an output of a final stage of multiple stages in a
receiver channel using a single comparison unit; and
selectively controlling the calibration of each stage of the multiple stages based on an
output from the single comparison unit, wherein selectively controlling the calibration of the multiple stages includes decoupling a controller having the single comparison unit as an input component from the receiver channel and decoupling calibration circuits that are adapted to calibrate the multiple stages from the receiver channel.

26. (Original) The method of claim 25, wherein the method further includes characterizing a performance of the receiver channel with the controller and calibration circuits decoupled from the receiver channel.

27. (Original) The method of claim 22, wherein selectively controlling the calibration of the multiple stages includes reconfiguring a controller having the single comparator as an input component to test the receiver channel.

28. (Original) The method of claim 27, wherein the method further includes using the controller to generate a linear ramp signal to test the receiver channel.

29. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method comprising:
controlling operational modes of a controller coupled to an output of a final stage of multiple stages in a receiver channel, wherein one operational mode includes calibrating each stage of the multiple stages based on evaluating a received signal from the final stage using a single comparison unit to compare differential intermediate versions of the received signal passing through the multiple stages.

30. (Original) The computer-readable medium of claim 29, wherein controlling operational modes includes providing a selection bypass signal to decouple the controller from the receiver channel and providing instructions to characterize a performance of the receiver channel with the controller decoupled from the receiver channel.

31. (Original) The computer-readable medium of claim 29, wherein controlling operational modes includes providing a test enable signal to configure the controller to test the receiver channel.